Official Publication of the Idaho Transportation Department – Division of Aeronautics

RUDDER FLUTTER

Winter 2009 — Serving Idaho's Aviation Community for over 60 Years — Vol 55, Issue 1

History vanishes in the ashes of the Big Creek Lodge

By: Frank Lester
Safety/Education Coordinator

At the beginning of October we were all shocked at the news that the famous, and much loved, Big Creek lodge had been completely destroyed by fire. According to an article in the Idaho Statesman, based on evidence and witness statements, it appeared that the fire was caused by an electrical malfunction. The main lodge and two other buildings were destroyed despite a valiant but futile attempt by Brook, one of the caretakers, who emptied three hand-held fire extinguishers in her efforts. The article quoted Vicki Martineau, who owns Yellow Pine Corner Bar, "Yellow Pine is just sick….There is so much history in that building that went up in smoke."

Flames lick at the last remnants of the lodge.

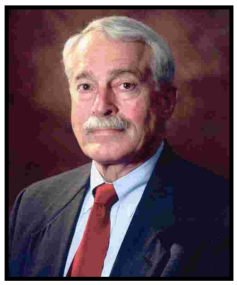
Big Creek Lodge in better days.

Thanks to Mike Weiss, Jim Hudson and Rachel Smith (pictures taken by Walt Smith of Arnold Aviation) for sending me pictures to use in this article. In the email that accompanied his pictures, Jim said, "Dan and his wife Brook, the caretakers, were just getting ready to leave and pay their last respects, just as we got there this afternoon. They will be heading back to Michigan. They both had tears in their eyes, and of

See Big Creek
Continued on page 17

INSIDE

From the Administrator:



With approval from the Idaho Aeronautics Advisory Board, the Division of Aeronautics is starting an informal search for one or more airfields in the state that could be upgraded to serve as an addition to our present premier recreation destinations. If you have a suggestion for such a location, please let me know.

Our already popular and nationally known recreational fields (Johnson Creek, Smiley Creek, Garden Valley and Cavanaugh Bay) are valuable economic and tourism assets to the State and provide excellent recreational flight destinations for pilots from all over North America. Unfortunately, they also experience periods of heavy use during our relatively short summer season. The need for additional recreational airstrips will likely increase in the future and it is becoming increasingly difficult, in light of restrictive federal, state, and local regulations, to develop new facilities.

Our premier recreational airports have certain attributes in common:

- They are located in scenic areas;
- They have relatively benign landing and takeoff restrictions with smooth, grass surfaces;
- They are near water, hiking, fishing and other recreation;
- They have good facilities including, in most cases, warm showers, flush toilets, good camping facilities, and courtesy cars;
- They are near small communities where food, refreshment, and entertainment are available;
- They have water, essential for irrigation.

There are several possible avenues for this effort. We could upgrade an existing state-operated airfield; we could assume operation of an existing field from another government agency (either federal or local); or we could develop a new field from scratch (probably most easily done on State lands controlled by the Idaho Department of Lands). Due to limited funding, we would initially operate these new fields with minimum improvements. As funding became available, we would make the desired improvements. Among other considerations, it may be advantageous to develop a recreational field at a lower elevation that would allow a longer usable season than our existing mountain strips. In any case, I feel that water rights, or water availability, to provide irrigation is important.

If you have ideas for new recreational airfields, please contact me at (208) 334-8788 (my direct number), john.dethomas@itd.idaho.gov or by U.S. Mail at 3483 Rickenbacker Street, Boise, ID 83705. Please pass this request for information to anyone with possible interest.

John "JV" DeThomas
ITD Aeronautics Administrator

The ***Rudder Flutter*** is published by the Idaho Division of Aeronautics, Office of Safety and Education. Articles appearing in this publication are the opinion of the writer and do not necessarily represent the views of the Staff, the Administrator, or the Department. All reasonable attempts are made to ensure the accuracy of the articles contained herein. The ***Rudder Flutter*** is published quarterly. All articles should be submitted to this office for review.

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Runway Safety: A Controller's Perspective

By: Kevin McDonald, Certified Professional Controller BOI ATCT

According to the FAA's own runway safety data and statistics, fiscal year 2008 was one of the worst on record for runway incursions. In the fourth quarter of FY2008, runway incursions more than tripled over the previous year. Although much of the increase can be attributed to the FAA accepting the International Civil Aviation Organization (ICAO) standard for a runway incursion, the agency is still spending millions of dollars every year combating this continuing problem.

Under the new definition, a runway incursion is "any unauthorized intrusion onto a runway, regardless of whether or not an aircraft presents a potential conflict." Previously, the FAA categorized such an event as a "surface incident." The intent of changing definitions is to not only bring us into compliance with ICAO standards but also to allow us to gather more comprehensive data and more accurately calculate the frequency of intrusions into the runway environment. It is the FAA's intent to reduce runway incursions through more training, education, heightened awareness, enhanced airport signage and markings, and dedicated technology.

One method the FAA has used to combat runway incursions is by teaming up with the AOPA Air Safety Foundation (ASF) to write case studies of specific runway incursions.

An excellent example is an incident that took place at Daytona Beach International Airport in 2007, involving a Cessna 182 and a Beech King Air 200. The ASF website (www.asf.org/dab) offers an animated replay of the actual event, including air traffic control audio tapes. By using these case study animations, the FAA is able to formulate a "lessons learned" analysis to train and educate pilots and controllers so that similar errors do not occur in the future.

As a controller here at the Boise airport, I can attest to the fact that we work with nearly every type and category of aircraft flying and encounter pilots of every skill level from beginning student to multi-thousand-hour commercial veterans. Although commercial pilots are not immune from incursions, the vast majority are committed by general aviation pilots. These incursions are generally attributable to either unfamiliarity with the airport layout or a lack of experience working in a tower-controlled airport environment.

From October, 2003, through September, 2008, the Boise Air Traffic Control Tower (ATCT) catalogued 11 runway incursions. Of those 11 incursions, 10 were pilot deviations. Of those 10 pilot deviations, 9 involved general aviation aircraft and 1, military. The 11th incident was attributed to controller error (yes, we make mistakes, too).

How can we prevent runway incursions? We are all subject to human error, so mistakes will happen. But with a coordinated effort, we can reduce runway incursions. Controllers try to provide instructions that are clear and precise. If you are a new pilot or unfamiliar with the airport layout…let us know; we will provide increased attention and step-by-step guidance. If in doubt…**ask before proceeding!** We are here to help you…don't be afraid to talk to us! We will be happy to clarify an instruction if necessary. Our primary goal is to ensure the safe and efficient flow of traffic…in that order.

You can further help yourself by becoming better educated with airport markings. Do you know the difference between the ILS critical area hold line and the normal hold line? Did you know that the Boise airport has recently upgraded to enhanced taxiway centerline markings? The vast majority of runway incursions over the last 5 years have been pilots inadvertently crossing hold lines. Posters have been distributed by the Runway Safety Action Team (RSAT) to fixed base operators at the Boise, Nampa, and Caldwell airports to demonstrate how these new markings appear in the airport environment. The Aeronautical Information Manual and various internet sites can be valuable tools in enhancing your understanding of these markings.

Our goal is perfection. With communication and teamwork…it is attainable. The Boise ATCT strives to meet our customer's needs. If we fall short, please let us know how we can improve. We welcome prearranged visits from pilots (or future pilots). Face to face interaction is important and often removes the "fear" factor that sometimes exists with new pilots operating in the world of controlled air traffic. Those of us who work at the Boise tower are ever mindful that service, is indeed, our only product!

Radio Chatter

By: Frank Lester
Safety/Education Coordinator

Fall Safe Pilot Seminars

This past fall, Aeronautics sponsored six very informative and interesting Safe Pilot Seminars. Visiting Nampa, Twin Falls and Idaho Falls was Mark Peterson, Owner, Preco Electronics in Boise. Mark, who flies the TF-51 Diamondback, talked about "The P-51, Warbirds and You." He highlighted the illustrious and decorated history of the P-51 Mustang including modern operations in and around non-towered airports. Mark addressed very important safety issues such as what we should expect when these and other Warbirds enter the local traffic pattern and how we can safely interact with them.

Dr. Michael Crognale, Professor, University of Nevada, Reno, Department of Psychology and the Biomedical Engineering Program, traveled to Lewiston, Coeur d'Alene and Sandpoint. Dr. Crognale, who does consulting and research in vision and aviation, presented "Seeing and Being Seen: Vision and the Aviation Environment."

Thank you to everyone whose support and assistance was so important in ensuring the success of these informative and entertaining seminars.

Stay tuned, Mike and Mark will be back for another round of seminars early next spring. Mike will travel south this time and Mark will go north. Watch your mail box, email, website or local FBO for dates, times and locations.

Hope to see you there.

Melinda Denton, Washington Wing Leader, Angel Flight, Dr. Mike Crognale, Valetta O'Day and Spokane FAASTeam Manager, Brent Morrow at Coeur d'Alene

Nampa Completes Parallel Taxiway Relocation

According to Colleen Hartnett, Nampa's Airport Director, after five years, four grants and almost $4 million dollars, the relocation of the Nampa Municipal Airport's parallel taxiway has been completed.

The new taxiway was relocated to meet B-II aircraft standards and now sports taxiway lighting rather than just reflectors. Although the project experienced several delays, it reached completion on October 22. Colleen and her staff would like to thank everyone for their patience during the construction, as well as the FAA and Aeronautics for their assistance with this project. Everyone is invited to drop by and check out the new and improved parallel taxiway.

Mark Peterson and Diamondback

Wind Turbine Update

Additional wind turbines are to be constructed near the existing Fossil Gulch site west of Bliss, Idaho. New turbine arrays have also been erected 10 miles southeast of Mountain home and proposals have also been introduced for a new wind farm east of Ammon, Idaho. Meteorological test towers, which will be used to determine site suitability for future wind farms, are to be constructed on Red Butte, 19 miles southeast of the Idaho Falls Airport and on a ridge overlooking the Salmon River, 11 miles west of Grangeville. Approved locations will have turbine heights in excess of 400 feet and will be painted white with synchronized flashing white strobes to provide night conspicuity.

As a follow up to the 699-foot antenna initially proposed by FM Idaho Company, LLC, at Pickle Butte last year, the FAA and the State of Idaho both objected to the original proposed site. Subsequently, a new site has been identified for this tower. Both the Division of Aeronautics and the FAA have evaluated the project and determined that the structure will be an obstruction to air navigation and requires lighting for both day and night conspicuity. The site selected is 15 miles south of the Homedale Municipal Airport near Highway 95 and six miles

See Radio Chatter
Continued on page 16

Maneuvering into Unusual Attitudes

By: Rich Stowell, MCFI-A

According to the AOPA Air Safety Foundation, 27 percent of fatal airplane accidents over a recent ten-year period occurred during maneuvering flight. Almost half of the maneuvering accidents were stall/spin related. Nearly one-third of the maneuvering accidents resulted from ill-advised attempts at buzzing, while the rest fell into categories such as aerobatics, formation flying, practice area flying, distractions and canyon flying.

Poor judgment and bad decision-making are often the prime movers behind buzzing accidents; hence, these accidents can be prevented rather easily by not succumbing to the impulse to buzz. Although judgment and decision-making issues are also involved in other types of maneuvering accidents, the other types tend to be driven by a breakdown in situational awareness and a misapplication of the controls. The fix, therefore, isn't quite as simple.

Specifically, pilots need to practice turning flight (basic, coordinated turns) with greater frequency: turns while in slow flight, climbing and descending turns, turning stalls, even chandelles and spirals. Pilots need to become more sensitive to yaw as well; not by fixating on the slip/skid ball, but also by seeing, feeling, and hearing the differences between coordinated and uncoordinated flight. Otherwise, we will continue to maneuver ourselves into deadly unusual attitudes (UAs).

Only Two Types of UA

Airplanes can enter an unusual attitude an infinite number of ways. Recovery actions, however, boil down to one of two types: spin recovery or roll recovery. Left to its own devices, even a nose-high attitude in a light airplane will eventually decay toward a nose-low attitude. Gravity always wins. And when gravity takes over, the heavy end of the airplane will point earthward. The pilot then either sees the earth whirling around rapidly in the windscreen, or sees the horizon located in an unfamiliar or undesirable place.

Rich Stowell

The reasons pilots should consider a few hours of structured UA training are twofold: First, such training teaches you how to function under the stress and demands associated with departures from controlled flight. Second, such training highlights the warning signs that often precede encounters with unusual attitudes. Recognizing and reacting to the warning signs will break the accident chain early, circumventing the need to implement one of the two UA recovery procedures.

For example, common precursors that can lead to an inadvertent stall/spin include power on stalls, skidded turns, and engine failures during takeoff. Common precursors that can develop into unwanted excursions in roll include steep turns, larger air traffic operating in your vicinity, and mountain wave activity. With a little preflight planning and in-flight situational awareness, we can be prepared to avoid many of the typical "what if" scenarios, or at least have reviewed the appropriate response to a departure from controlled flight ahead of time.

Remaining aware of and proactively avoiding the conditions that can lead to an unusual attitude are always the best strategies. But if the airplane encounters a genuine unusual attitude, several factors must be present for a successful outcome, namely: prompt recognition, correct and systematic application of the appropriate recovery procedure, an airplane capable of responding to the recovery inputs, and altitude in which to affect recovery.

The Council on Unusual Attitude Training & Education (CUATE, www.stallspin.com) has adopted the following working definition for "unusual attitude": an umbrella phrase that includes, among other things, the unintended attitude that can follow an encounter with an inadvertent stall or spin, wake turbulence, or an uncommanded spiral. Unusual attitudes can arise as a result of pilot and airplane interface issues, inappropriate control inputs, or environmental factors.

Upright Spin Recovery--PARE

1. Power--off
2. Ailerons--neutral
3. Rudder--full opposite to yaw
4. Elevator--push toward/thru neutral

Roll Recovery--Power-Push-Roll

1. Power--off (if descending)
2. Push--unload aft elevator pressure
3. Roll--lots of aileron, some coordinating rudder

Rich Stowell is a Master Instructor of Aerobatics and author of the book, "The Light Airplane Pilot's Guide to Stall/Spin Awareness."

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Aviation Medical Matters: CO and You

By: Mike Weiss, MD, MPH, CFII and Paul Collins, MD

For those of you veterans…no…this is not about your old C.O. Although, depending on your relationship with him, it might be even more toxic. It is about Carbon Monoxide; a silent, stealthy, odorless, colorless gas that is potentially deadly and a special threat when you seal off the cockpit of your old Bugsmasher and fire up the heater against the winter cold. How many of you have a little tan circle on the panel that is supposed to turn dark when exposed to carbon monoxide? How many bought it within the current decade (they are designed to last a few months, at best)? Anybody have one of the alarms you plug into the cigarette lighter? If you do, have you checked it lately? You should. Here's why.

Carbon monoxide is the product of incomplete combustion. It has great affinity for hemoglobin, the oxygen carrying protein in red blood cells. When present, it binds to red blood cells much more tightly than oxygen and blocks the ability of the blood to deliver oxygen to some pretty important parts of the body, like the brain and the heart. This is not good.

Internal combustion engines in cars and planes inevitably produce lots of carbon monoxide. Engines are designed to keep it away from the cockpit, but if there is even a small crack in the exhaust system, look out. Heaters may produce it as well.

Cigarette smoke contains carbon monoxide and smokers generally have 5 to 10 times as much carboxyhemoglobin (the protein combination of carbon monoxide and hemoglobin) in their blood than non-smokers. This level does not usually create acute problems in people who are otherwise healthy, but can be a factor in heart attacks if there is coronary artery disease present. Above an altitude of 5000 feet, it adversely affects night vision and may cause headaches and affect judgment and reaction time. This should be considered when flying approaches to minimums in McCall, Reno or Jackson Hole, especially if you fly single-pilot IFR. Smokers should use supplemental oxygen above 5000 feet at night.

When carboxyhemoglobin levels increase due to a CO leak into the cockpit, the problems accelerate. At twice the usual level seen in smokers, headaches begin. The pilot may feel warm and sluggish. There may be dizziness, pressure at the temples or ringing in the ears. At four times, there may be slight shortness of breath and drowsiness. At six to seven times, judgment and vision become blurred. At eight to ten times, there will likely be a pounding headache, confusion, marked shortness of breath, and a worsening of the previously listed symptoms. At 10 times there will be loss of consciousness and eventual death if the pilot and passengers are not removed from the exposure. There are stories of pilots (including a doctor from Nampa) waking up in a field when they finally ran out of gas and the autopilot, fortunately, allowed the aircraft to glide to a survivable off-airport landing. What percentage of pilots/crews exposed to CO, who did not have such luck is unknown, but between 1967 and 1993 at least 360 crash victims had carbon monoxide exposure sufficient to at least impair their abilities.

The dangers of CO poisoning are entirely preventable. When the weather turns cold, do a thorough inspection of your exhaust and heater systems. Pay more attention to them as part of your pre-flight inspection. Be aware of the symptoms. If you are at all suspicious, turn the heater completely off. Open vents and windows. Use oxygen, but most importantly, alert Air Traffic Control, declare an emergency and land as soon as possible. When safely on the ground, have yourself checked for carbon monoxide poisoning at an emergency clinic. At least call your regional poison control center for urgent advice. If your carboxyhemoglobin level is elevated you will need to be on 100% oxygen for at least a few hours and may even need to be transported to a hyperbaric oxygen chamber to avoid delayed, permanent damage to your nervous system.

Invest the cost of a couple of gallons of gas on a warning detector for your panel and place it where it is easily seen. Make it part of your scan. Make sure it has not expired. Think about getting an electrical alarm, but, as part of your pre-flight inspection, make sure it is working. Remember that these devices are not 100% reliable, so be suspicious if any of the above symptoms are present and take action. Don't be a statistic!

Note: This is my last contribution to the Rudder Flutter for a while, as I will be serving in the Peace Corps in Albania for 27 months beginning in March. Dr. Collins will be carrying on Medical Matters for both of us while I am gone. I am looking forward to checking out the glider and LSA scene in Eastern Europe while I am over there. You can check out my blog at **idalbania.blogspot.com**

- Mike Weiss

Airport Maintenance

By: Gary McElheney, Aeronautics Airport Manager

– Attention ALL Pilots –

Cavanaugh Bay Airstrip

!! X CLOSED X !!

Airport will be closed until late spring
Centerline reseeded – Soft and muddy when wet

Runway is marked with cones and flags

Consult NOTAMS for more information

May 2008

September 2008

November 2008 - Note Cones

Cavanaugh Bay Runway Restoration

Many of you have heard of, or experienced the inconvenience this fall, of the closure of Cavanaugh Bay Airport. The runway had become very rough due to excessive use, poor soil conditions and snow mold preventing the grass from spreading. In September, Aeronautics staff and maintenance crews, with the help of Trent Pressley, co-owner of the Cavanaugh Bay Resort, began rehabilitating the centerline and aggressively aerating the entire airfield. A section approximately 35 feet wide by 2,800 feet long was covered with 950 cubic yards of topsoil and the entire airfield was seeded with 1,400 pounds of Kentucky blue grass and rye grass. The excellent fall growing season has allowed the grass to become established and continue growing very well.

Next spring, in May or early June, I will inspect the new turf and, depending on surface conditions, determine when we will open the airfield. I do not want to open the airfield too soon and place the extensive rehabilitation effort and cost in jeopardy. The renovated and reseeded runway will provide local and visiting pilots a safe, smooth runway surface for many years in the future. This will certainly benefit the local community and the State, and gives a popular recreational facility a much needed face lift.

In 2009, budget permitting, other projects at Cavanaugh Bay such as improvements to the aircraft parking areas and refurbishment of facilities at the airport are planned.

On behalf of the State of Idaho, I would like to thank Brion Wise for his generous support of the rehabilitation project. I would also like to thank Trent Pressley for his time and equipment and Craig Lee for his cooperation and insight on this project. Without their help, the renovation would not have been as successful. The next time you visit Cavanaugh Bay, please take the time to thank these gentlemen for their valuable assistance.

THANK YOU

To all those who helped make the fall

Safe Pilot Seminars a Success

EAA 407- Idaho Falls/Pocatello, EAA 328 - Lewiston, EAA 1441 – Sandpoint, CAP, FAASTeam, Twin Falls Farm Bureau, Avcenter-Nampa, ISU-Idaho Falls, Robin Wells, Natalie Bergevin, Mark Peterson, Jan Lee, Dick Roberts, Friends of the Sandpoint Airport, Dr. Mike Crognale, Budweiser Centennial Distributing Inc, O'Day Construction, Intermountain 99s, Lewiston Airport, Idaho

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All I ever wanted was a 406 MHz ELT!

By: Frank Lester, Safety/Education Coordinator

Well…maybe a new ELT is not at the top of your wish list but it should be in the top 10 or at least periodically crossing your mind. I am still of the belief that buying one and installing it before February 1, 2009, though somewhat pricey, in the long run may prove to be cheap insurance. However, from what I have heard, I may be in the minority in that belief. Of course, I'm not the one paying the bill.

Something else I have heard is that there is some confusion about the switch from the 121.5 MHz to the 406 MHz on February 1. It may be worthwhile to make a few points of clarification:

1. The decision to switch off the 121.5 MHz satellite monitoring is an international decision by the International Civil Aviation Organization (ICAO) not the FAA.
2. The requirement to have an ELT in your aircraft is spelled out in the FARs.
3. Switching from a 121.5 MHz ELT to a 406 MHz ELT is **encouraged** but **not** mandatory.

The newer digital technology, greater strength, power and the accuracy of the 406 compared to the 121.5/243.0 are significant upgrades to our search capability and will greatly enhance your chances of being rescued should you survive a crash. However there appears to be a large number of you who, for one reason or another, are choosing not to upgrade. The remainder of this article is written for you.

For whatever reason you are not switching to the 406 MHz ELT, there are still several actions you can take to increase your chances of being found if you turn up missing but your margin of error is much smaller. You will need to be much more conscientious and meticulous about how you plan your flight, fly the aircraft and adhere to recommended procedures. So here are a few requests from our wish list to you, which will be enormously helpful should we have to launch a search on your behalf:

1. Plan your trip over well-know landmarks or navigation aids.
2. Plan specific points where you will make position reports.
3. File a flight plan and religiously stick to it.
4. If you will not be in range of, or plan not to use, Flight Service, give your flight plan to several people and religiously stick to it.
5. Use flight following when on a VFR flight plan.
6. If flight following is not available, transmit a position report in the blind (122.9) or to a local Unicom or tower along your route.
7. If you filed a flight plan with Flight Service, close your flight plan with Flight Service. If you will lose radio contact before you reach your destination, if there no phone service or a high probability of no cell service, give a good position report to Flight Service with an ETA to your destination and then close your flight plan.
8. If you have left your flight plan with friends or relatives, "close your flight plan" with those same friends or relatives. Before you depart, tell them that you plan to "close your flight plan" **no later than** a specific time. If you fail to call, tell them to contact Idaho State Communications, 800-632-8000 and report an overdue atrcraft. Our best advantage in a search will be a timely call from that concerned friend or relative. Tell them never to hesitate in calling. Whether you forgot to call or have a problem, we have the resources to look for you and confirm that you are okay.
9. If you are forced to divert or decide to change your route of flight, tell someone.
10. Communicate; Communicate; Communicate.

This may sound like a lot of job security for someone or overkill to others but if you are in trouble or someone you care about is worried, you will be glad you invested the time in this simple plan.

Fly safe; fly smart.

The Color of Aviation:

"Dad, teach me to fly"

By: Mike Pape, Aeronautics Director of Flight Ops

Idaho pilot takes the lessons from his father to reach the pinnacle of flight.

Pat Williams - taking it all in with a smile.

Gunfighter Skies 2008, Mt. Home AFB, Sept. 14: Cutting edge acrobatics, 40 acres of aircraft and the booming sounds of freedom welcome my four year old son Sam and me as we arrive at the airshow. Although every aircraft on display garners much interest, nothing is more popular than the most advanced military fighter in the world, the F-22 Raptor.

The dashing young F-22 pilot displaying his fighter to the veterans, kids and admirers of all ages is Idaho native and USAF Capt. Pat Williams. Selling Raptor shirts next to him is his first flight instructor, mentor and father, Dick Williams. It was hard to determine which pilot was most proud.

Dick Williams is one of Idaho's legendary backcountry pilots, having spent the past 30 years piloting and teaching backcountry flight skills to legions of Idaho pilots. Dick has taught courses, written books and produced videos on numerous aspects of Idaho backcountry flying.

In 1981 Dick was making a living in Salmon, ID piloting Cessna 206s, 185s and Islanders when his son Pat was born. "How old was he when you first got him in the air," I asked. "Well, I had a trip to the Root Ranch two weeks after he was born and I saw no reason why he couldn't tag along," Dick replied. So begins a piloting career.

It wasn't many years after his Root Ranch flight that Dick had Pat settled into the front seat of the family Super Cub. "A natural," Dick called him, "nothing less than a young man simply born to fly. I have known pilots with the right stuff throughout my own piloting career, but natural ability usually takes a pilot only so far."

I suspected there was a special aspect about the flight instruction Pat received from Dick. "I taught him myself," Dick says. "But not the way you probably expect. I never planned to have him in the solo race at 14 and a private certificate at 16. Having Pat as my son and student gave me the chance to teach him over a period of years, many years; in addition, I had a unique opportunity: the ability to teach him exactly how, where and when I wanted to, a condition not available to many flight students."

Dick certainly took an unorthodox approach to teaching Pat how to fly. Even as a seven-year-old boy unable to reach rudder pedals, Pat was absorbing the flight education that would make him one of the military's top pilots. "Even at that young age, I sought to teach beyond simple aircraft control. I wanted to include judgment and thought processes as well," says Dick.

Other techniques Dick used in his grooming of Pat were concepts never considered by most CFIs, such as an early exposure to public speaking and music. The communication skills that developed from such participation were indirectly part of the flight curriculum. Recognizing an early interest in aviation and nourishing it in a fun, family oriented way was yet another skill of Dick's.

"What sunk in through those many years and hundreds of flight hours with his dad?" I asked Pat. "Respect," he recalls. "Respect for the airplane, the air, the conditions and my piloting limitations. Dad reminded me over and over that an airplane has more skill than a pilot. It can always do things you can't. It's a mantra I've used even today while flying the F-22."

Dick was certainly thorough with Pat. When it was time for his first dual cross country in the Cub from his home base airport, Nampa, Dick briefed Pat on the destination. "How about… Traverse City, Michigan? I told him I expected nothing but pilotage the entire first day," said Dick, "and after that maybe I'd let him tune in an occasional VOR; oh, and no paved strips the whole way!"

See Teach Me

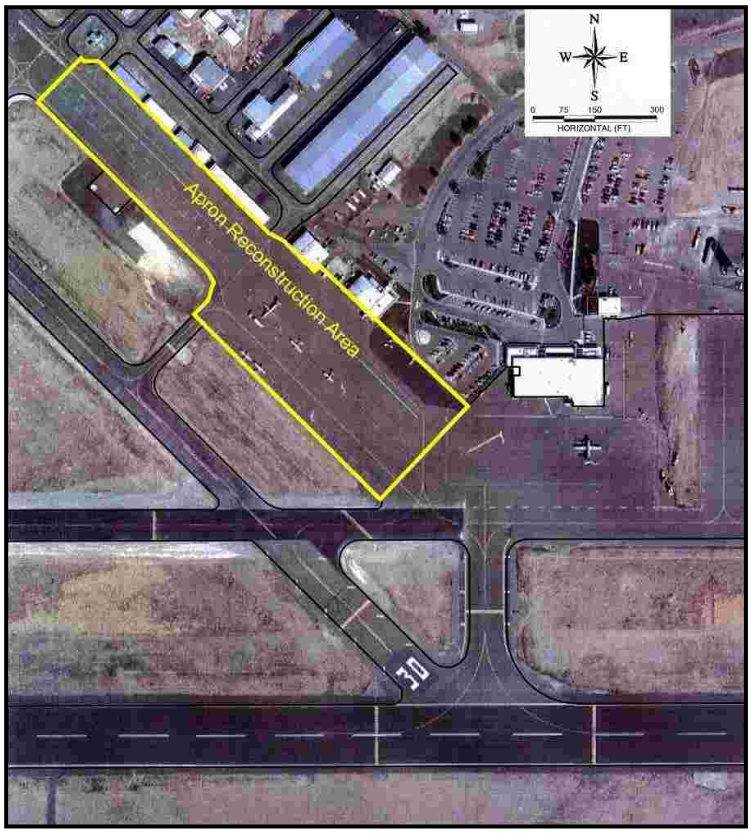
Continued on page 18

Joslin Field, Magic Valley Regional Airport (TWF) Update

By: Alan Hansten
Riedesel Engineering, Inc.

Joslin Field had a very exciting 2008 being given the honor of hosting the Navy's Blue Angels flight demonstration team as part of its biennial air show, July 26 and 27. Lots of present day military iron was on the ramp as well as a great sampling of war birds from the past including a B-25, P-40, P-51, TBM, AT-6s and Sky Raiders. You can go to www.Airmagicvalley.org to view some of the photographs from the show. A lot of hard work went into putting this event together and airport personnel and event organizers would like to express their gratitude to all the volunteers, sponsors and performers that made the show a success. The attendance was outstanding and we have received nothing but good comments regarding the show. We look forward to the privilege of hosting the Blue Angels again in the future.

On September 6, the Twin Falls Fliers hosted a safety seminar at the airport to help re-familiarize pilots with aircraft take-off and landing performance. Frank Lester from the Idaho Division of Aeronautics presented the seminar on density altitude and its affect on aircraft performance. Pilots calculated their aircraft take-off performance over a 50-foot obstacle and then had the opportunity to actually compare their individual aircraft's performance during take-off to their computations. Pilots from all over the state attended the event. The Twin Falls Fliers would like to thank Reeder Flying Service for helping host this great pilot training event.



Going into 2009, the airport is looking forward to some new FAA Airport Improvement Program projects to be completed. Riedesel Engineering, Inc, recently contracted with the airport to provide consulting services for the 2009 projects including rehabilitation of the west apron in front of Reeder's Flying Service main office, snow removal equipment procurement and a Pavement Condition Index survey, which will help guide the airport in planning future pavement maintenance projects. Construction on the apron area is scheduled to begin in mid- to late summer and be completed by early to mid-fall. The affected area is outlined in the accompanying photograph.

One final note, Jim Conder and Ron Yates are researching the history of Joslin Field. If you have any information, memorabilia or photographs that you would like to share, please give Jim a call at (208) 326-5467, Ron at 736-0870 or the airport office at 733-5215.

Calendar of Events

JANUARY

21 **Aeronautics Advisory Board Meeting,** Boise, Tammy Schoen, 208-334-8775, tammy.schoen@itd.idaho.gov

30-31 **Flight Instructor Refresher/Pilot Safety Clinic**, Cambria Suites, Boise, Tammy Schoen, 208-334-8775, tammy.schoen@itd.idaho.gov

MARCH

13 **IA Renewal**, Best Western Vista Inn, Boise, Tim Henderson, tim.henderson@itd.idaho.gov or Tammy Schoen, 208-334-8775, tammy.schoen@itd.idaho.gov

18-20 **Safe Pilot Seminars**, Frank Lester, 208-334-8775, frank.lester@itd.idaho.gov

APRIL

1-3 **Safe Pilot Seminars**, Frank Lester, 208-334-8775, frank.lester@itd.idaho.gov

4 **Flying Companion Seminar**, Boise, sponsored by Idaho 99s, Beth Shannon, 208-922-3518, beth_terry@msn.com

17-18 **Flight Instructor Refresher/Pilot Safety Clinic,** Nampa, Frank Lester, 208-334-8775, frank.lester@itd.idaho.gov

*Email your event information to tammy.schoen@itd.idaho.gov for inclusion in the **Rudder Flutter** and the Aeronautics website.*

Idaho Airport/Facility Directory

The most up-to-date information on all Idaho airports is available on our website, **www.itd.idaho.gov/aero**.
Click on Airport Facility Directory to access the map-based system.
Please contact Mark Lessor at 208-334-8895 or **mark.lessor@itd.idaho.gov**
with updates/suggestions regarding this online directory.

Lewiston EAA Chapter to Build 1909 Curtiss Pusher

By: Jim Otey, EAA Chapter 328

In early 2008, a gentleman from the city of Clarkston, Washington, brought to our hangar an old, yellowed set of detailed plans for a 1909 Curtiss Pusher, Model D. The plans had been uncovered in the attic of an aging relative. He asked if we at EAA would have any interest in either displaying or using the plans.

Ruth Law (Oliver) and a Curtiss Headless Pusher
Photo by Dave Cadorette

His offer resulted in some very interesting discussions, among not only our membership but also among area aviation enthusiasts. One such enthusiast is well-known aircraft designer (Avid Aircraft), rebuilder and pilot, Dean Wilson. Almost immediately it became obvious that more than a casual interest existed in exploring the possibility of building an accurate replica of the original Model D. That interest grew further as a re-enactment of Idaho's Centennial of Flight, having occurred in Lewiston on October 13, 1910, was considered.

After several days of discussions, we knew that in order to be successful in this effort, a solid plan to attract investors, both finance and talent, would be required. As the project began to take shape, so did our plan: We will build the Pusher and then fly it as part of the centennial celebration. Subsequently, we hope to find a collector or museum willing to purchase it. The revenue would then be used to pay down any remaining debt. In addition, we have applied for a grant through the Wolf Aviation Fund but any further suggestions for other sources of possible funding are certainly welcome.

With an initial investment of Dean's design skills and experience, my interest and experience, and our combined enthusiasm, the Pusher had a start. Others came forward to add their skills and passion as it became apparent that this could be a way of recognizing the aviation heritage of the Lewiston/Clarkston area as well as commemorating the 100th anniversary of flight in Idaho.

Approximately six months of steady work by Dean and me, including additional help from some very talented volunteers, has produced the majority of the structural pieces for the airframe. Some pieces have been assembled and the Model D is beginning to come to life.

Jim Otey

As work proceeds, I will send along additional reports and photos documenting our progress. Anyone wishing to participate in this endeavor is invited to contact Jim Otey at (208) 746-8488. Visitors are invited to come by our hangar on the Lewiston airport to see the aircraft, talk about the project or to just "hangar fly." If able, donations are also welcome.

Mike Pape Receives NBAA Silk Scarf

Mike Pape and Governor Otter

The National Business Aviation Association (NBAA) recently awarded the Silk Scarf Award to Mike Pape. Kristi Ivey, Northwest regional representative, presented Mike with the award at the September 18 luncheon meeting of the Idaho Business Aviation Association (IBAA). Mike's career is driven by his passion for aviation: Over the past 23 years, he has flown with airlines and business aviation operators such as U.S. Bancorp, Boise Cascade/Albertsons, and is currently the Director of Flight Operations for the Idaho Division of Aeronautics.

Mike made a significant contribution to the field of business aviation in 2003, when he founded the IBAA, the first NBAA-sanctioned organization to serve the interests of the Idaho business aviation community. Mike recently stepped down as president of IBAA's steering committee, but continues to serve as a committee member and as a member of the Boise Airport Board.

A Little More Organic Chemistry

By: Steve Clements, Top Fun Flyers Flying Club

I had been doing some fabric work and decided to investigate the kinds of compounds I was working with and why I needed to wear a mask and gloves when I'm around them. As a result of my curiosity and a little college organic chemistry, I wrote a short article for the December '07 issue of the ***Rudder Flutter*** providing a little insight into the chemistry that surrounds these compounds. Here is the second part of that article:

Nitrates and nitros are flammable or explosive organic compounds that contain nitrogen and oxygen; for instance, nitrocellulose (smokeless gun powder, movie film, and aircraft fabric tautener), nitroglycerin or ammonium nitrate (ampho).

Polymers are long carbon chains incorporating special compounds. The simplest LONG carbon chains are called polyethylenes (hydrocarbons). When chlorine atoms are attached to every other carbon in the chain, you get PVC (vinyl) which, when dissolved in MEK, is great for sealing Dacron aircraft fabric.

Imagine a chain of generic carbons. Break the chain, insert an oxygen molecule and you have made an organic compound called ether. Arrange for another oxygen to be introduced nearby (see Figure 1), and you have made an ester. Repeat this all along the chain and you have polyester.

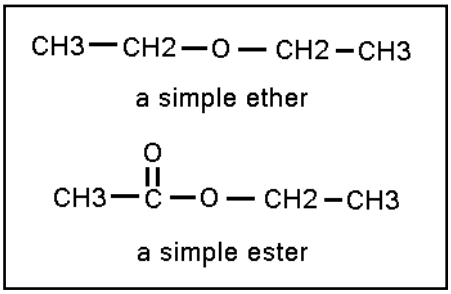


Figure 1

If you get fancy in designing small ester groups and then get them to polymerize (hold onto each other to form chains), you get the polyesters we recognize around us: fabric (Dacron is the woven fiber, Mylar is the sheet, but the same stuff), polycarbonate (Lexan), PMMA (Lucite, Plexiglas), and cellulose acetate butyrate (aircraft dope, screw driver handles, contact lenses).

The cockpit canopy of the F-22 Raptor is made from a single piece of high optical quality polycarbonate and is the largest piece of its type formed in the world. Polycarbonate is UV opaque and is dissolved by MEK. PMMA (a polyester acrylic) was the first plastic used in bomber windshields in WWII but it often broke; polycarbonate will hold together.

An organic solvent is a liquid that will dissolve a solute to make a solution (clear) or suspension (turbid). The solvents used in aircraft fabric adhesives, fillers and pigments are almost without exception harmful to our lungs and liver. They include acetone, MEK, and toluene. Wear an appropriate mask, rubber gloves (latex or nitrile) and ventilate the work area.

Wikipedia is a great source of information on all of this - say a prayer first.

Radio Chatter

Continued from page 4

east of the Idaho/Oregon border (43 24 8.50N, 116 54 12.50W, 5430 feet MSL at the top of the structure). The FAA has issued an extension to the determination giving FM Idaho Company until April, 2010 to build this tower. We will notify you when the tower is completed. Mark Lessor, Aeronautics Aviation Technician, flies the area frequently and will keep an eye on the progress for us.

Pilots should become familiar with these locations prior to any flight in the area.

Big Creek

Continued from page 1

course were very sad. They were fairly certain that wiring in the attic caused the fire. It was very sad to see the remains. Scott (the owner) was also there and said he hopes to rebuild, but said he was uncertain about the lease. [We have] many fond memories of Big Creek and hope to have the lodge back soon."

Scott's concern about the lease begs the question, "When is the lease set to expire?" According to what I have heard, there are currently two years left on the lease with the Forest Service. Now might be the time to voice your support for the extension of that lease, which would allow the Big Creek lodge to be rebuilt. To whom or to where would you turn to voice that support? The Forest Service? The Idaho Aviation Association?

Your legislators? I don't know if there is an organized effort to address this issue. But it will take more than one individual to make it happen.

Although the lodge may be replaced, we are now left with only memories and photos of this historic backcountry destination.

Teach Me

Continued from page 10

Captain Pat William and his F-22

"Was it helpful?" I asked his private pilot examiner and one of Idaho's most famous CFIs, Dick Miller, to describe how Pat performed on his check ride. "Best private evaluation ride I'd ever seen," says Dick without blinking an eye, "and just as I expected."

In case you think Pat is a perfect, unfailing pilot, Dick tells of a hurdle that almost derailed Pat's entire career. "Those SATs," recalls Dick. "Would you believe Pat failed to meet the SAT standards for the academy…**TWICE**?" It took all the persistence he could muster to regroup with the ACT exam and regain the confidence required to finally make the grade. I suspect that in the end, that lesson on perseverance proved very valuable.

When I asked for any other qualities developed during this unique training program, Dick credited one very non-pilot-like attribute in Pat. "Humility," says Dick. "Being a humble, likeable person who can relate to people young and old, important and unimportant, that's what makes any man successful."

Pat reached his goal of being accepted into the Air Force Academy in 1998 and graduated with a degree in Astronautical Engineering four years later. He took a special interest in the Academy soaring program. "Initially it was Dad's idea," said Pat. "He always emphasized how important glider instruction was in becoming a first rate backcountry pilot." Pat went on to work as a glider instructor and eventually take charge of the entire academy soaring program.

Rendezvous at High Valley

When Pat called to report he was bringing the Raptor from Alaska to Mt. Home for the airshow, Dick came up with a great idea. He would organize his many pilot friends to fly up to High Valley near Cascade and "intercept" Pat's F-22 as he zoomed by. "I thought this was a great idea until I realized what a safety concern it may cause. "Pat," Dick surmised, "what if one of these little airplanes gets in your way?" "I can see them, Dad," confided Pat. "But we'll be flying old Cubs and Husky's," said Dick, "some of these planes don't even have transponders!" "Umm…Dad," reminded Pat, "I said… **I can see them**." "Wow…what an airplane!" thought Dick.

Today Capt. Pat Williams is based at Elmendorf AFB in Alaska where he continues to perfect his fighter pilot skills in the F-22. He equally enjoys flying his Dad's Cub in and out of Alaska's abundant lakes during his off time.

I asked if Dick still gets some stick time in the family Cub. "Sure!" says Pat. "Who's the PIC then?" I ask. "Oh, technically Dad is, but I've been teaching him a few new things in the Cub. He's coming along just fine."

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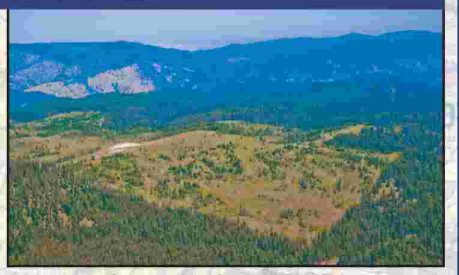
Real Estate Professionals — McCall, Idaho

HUNGRY RIDGE RANCH (PVT) 4599′ N45.47 W115.56 2246X75 TURF CTAF 122.9



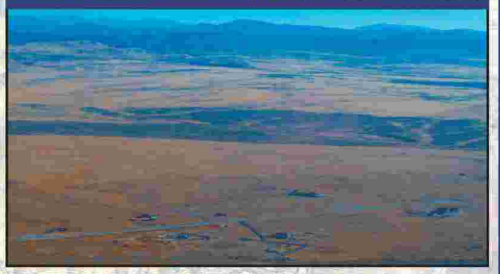


HUNGRY RIDGE RANCH Private 2246 ft airstrip, 400-acre ranch surrounded by USFS. World class hunting & fishing. Near Grangeville, S. Fork Clearwater River & Gospel Hump Wilderness. • 20 parcels, 10-35 acres. **$129,900 - $189,900** • New 1450' cabin on 26 acres 2BR/1.5BA & loft, generator/solar. **$399,000**

PISTOL CREEK RANCH (PVT) 4721′ N44.43 W115.09 2744X100 TURF CTAF 122.9

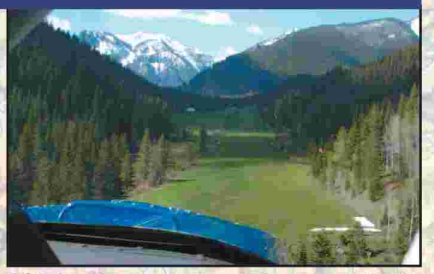

MIDDLEFORK SALMON RIVER LOT 1/2 acre lot in private 220-acre ranch (21 owners) Frank Church Wilderness. Full ranch amenities and lodge. **$225,000**

RED BARON AIR PARK (1ID4) N43.31 W115.90



MOUNTAIN HOME AVIATION LOT 1.8-acre site with direct access to 2900 ft paved runway. 20 miles from Boise. Close to Idaho backcountry, Sun Valley, McCall, Owyhee Desert. **$85,000**

BIG CREEK (U60) 5743′ N45.08 W115.19 3550X110 TURF CTAF 122.9

BIG CREEK CABIN LOT Upper Basin headwater of Big Creek. 1.2 acre treed lot, approx. 1/2 mile from Big Creek strip & lodge. Access to Frank Church Wilderness & USFS. Great hunting & fishing. **$99,000**

CASCADE AIRPORT (U70) N444.30 W116.01

CASCADE HANGARS Four, 2700 SF units - **$189,000 ea.** or combine up to **10,800 SF total for $718,000.** 55' doors on S side & 45' doors on N side. 25 yr lease. Each unit has bathroom, hot wtr heater, overhead propane heater & electric svc.

ELK CITY (S90) 4097′ N45.49 W115.26 2600X150 TURF CTAF 122.9


AMERICAN RIVER FRONTAGE IN ELK CITY Custom cabin 3BR/2BA/loft, 2-car garage on 2.85 acres. Year round access. Enjoy fishing, hunting, off-road adventure. **$318,000** Also 12 American River frontage lots, 1-3 acres each, **$59,500 - $79,500**

MCCALL AIRPORT (MYL) N44.53 W116.06

MCCALL HANGAR 42' wide X 35' deep. 12' bifold door, concrete floors, paved ramp and taxiway, rough plumbing, 125 amp 220v power, lights, heat, fully insulated. No association fees. **$135,000**

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McCall, Gateway To The Idaho Backcountry

Idaho Division of Aeronautics
3483 Rickenbacker / PO Box 7129
Boise, ID 83707-1129

Can you name this aircraft?

Email me the answer at frank.lester@itd.idaho.gov and I will let everyone know in the next Rudder Flutter just how smart you are. There may even be a real cool something or other lurking in The Black Hole, my office, that I will be more than happy to present you for your effort.

I will not only give you the answer to this question in the next issue but also a short but fascinating history of the incredible organization that flew it.

Editor: Many thanks to the photographer for allowing us to use his photo. In order to prevent giving away the answer, I will withhold formal acknowledgement until the spring issue when "…the rest of the story" is told.

Name this aircraft